SCIENCE*SPRING*DAY

DEPARTAMENTO DE INFORMÁTICA

(Distributed) Transactional Memory

COMPUTER SYSTEMS / CR4 Team

CHi
CENTER FOR
INFORMATICS AND
INFORMATION
TECHNOLOGIES

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I am a 1st year Ph.D. Student under the supervision of prof. João Lourenço.

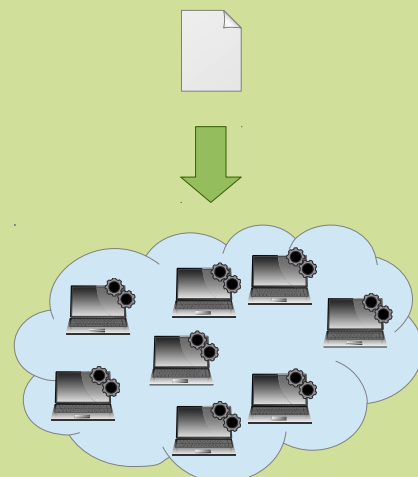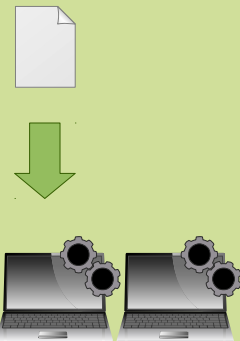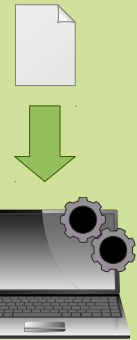I received my M.Sc. in Computer Science from FCT-UNL in 2011/2012.

Objectives

- Improving resource utilization in modern multi-core computers;

- Providing software developers with new techniques and tools for parallel and distributed computing;

- Enabling High-Performance Computing to a broader community of researchers and industry;

- Improving productivity of applications deployed in the Cloud.

Methodology

- Use the Transactional Memory paradigm;

- Development of mathematical models and computational prototypes;

- Validation using, but not limited to, experimental tests;

- Evaluation includes comparison with related state-of-the-art approaches.

Expected Results

- Contribute to more efficient computing;

- Bring parallel programming to the masses;

- Advance the state-of-the-art in transactional memories;

- Prototype that allows to scale applications to computer clusters and/or the Cloud.